

# PLANNING FOR SEA LEVEL RISE ON THE HAYWARD SHORELINE

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# Hayward Area Shoreline Planning Agency (HASPA)

## Members:

- East Bay Regional Park District
- Hayward Area Recreation & Park District
- City of Hayward

# Overview

## ■ Vulnerability

- Vulnerability of different functions

## ■ Adaptation

- Uncertainty in rate, certainty in direction
- Moving frame of reference

## ■ Next Steps



# Habitat



Oro Loma Marsh

Triangle Marsh

Cogswell Marsh

Hayward Marsh

Alkali Flat

Oliver Brothers  
Property



# Storm Drainage



Bockman  
Channel

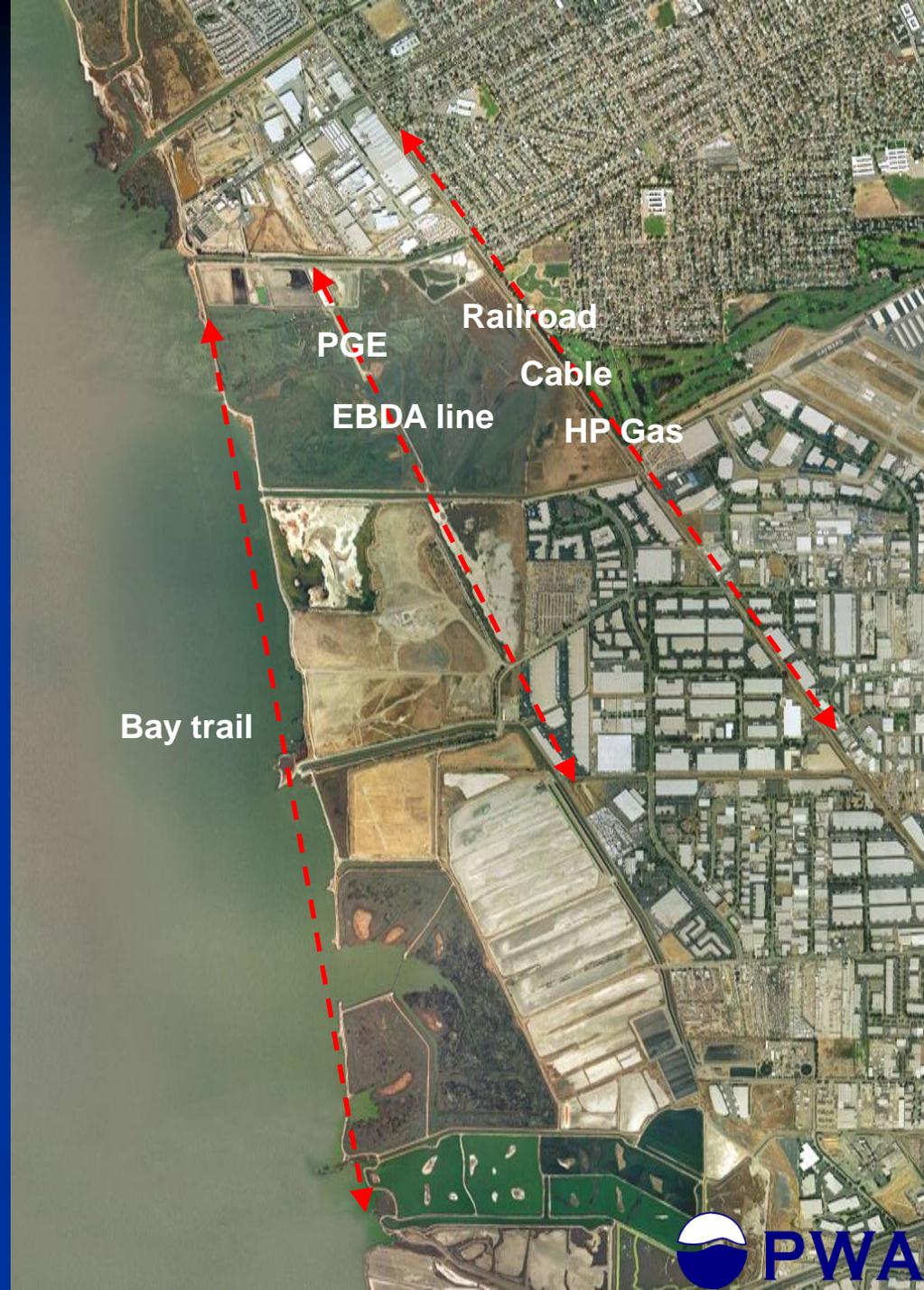
Sulfer Creek  
Line "K"

Line "A"

# Landfills & Wastewater



# Utilities & Trails

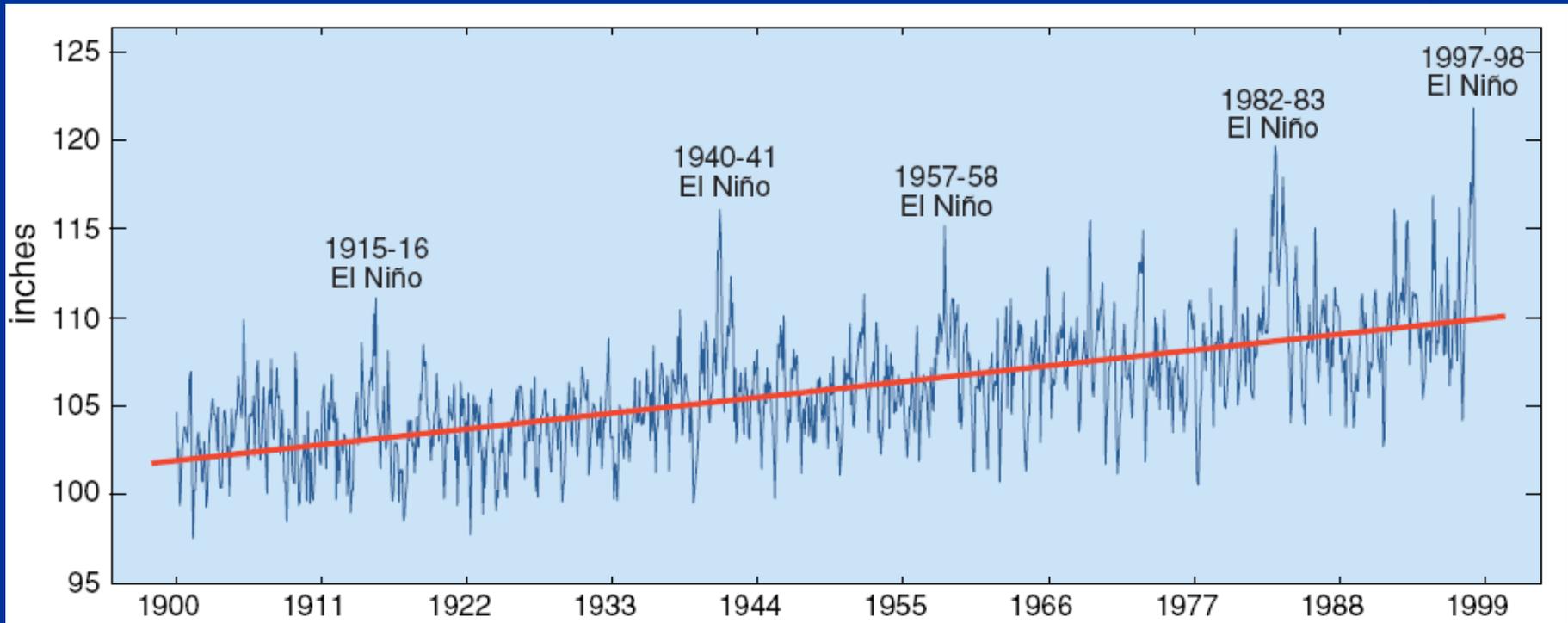


# Sea level rise: San Francisco

Sea level rose 7 inches in last century

Rate of sea level change 2.17 mm/yr

Higher than global average (1.5-2 mm/yr) because of local subsidence



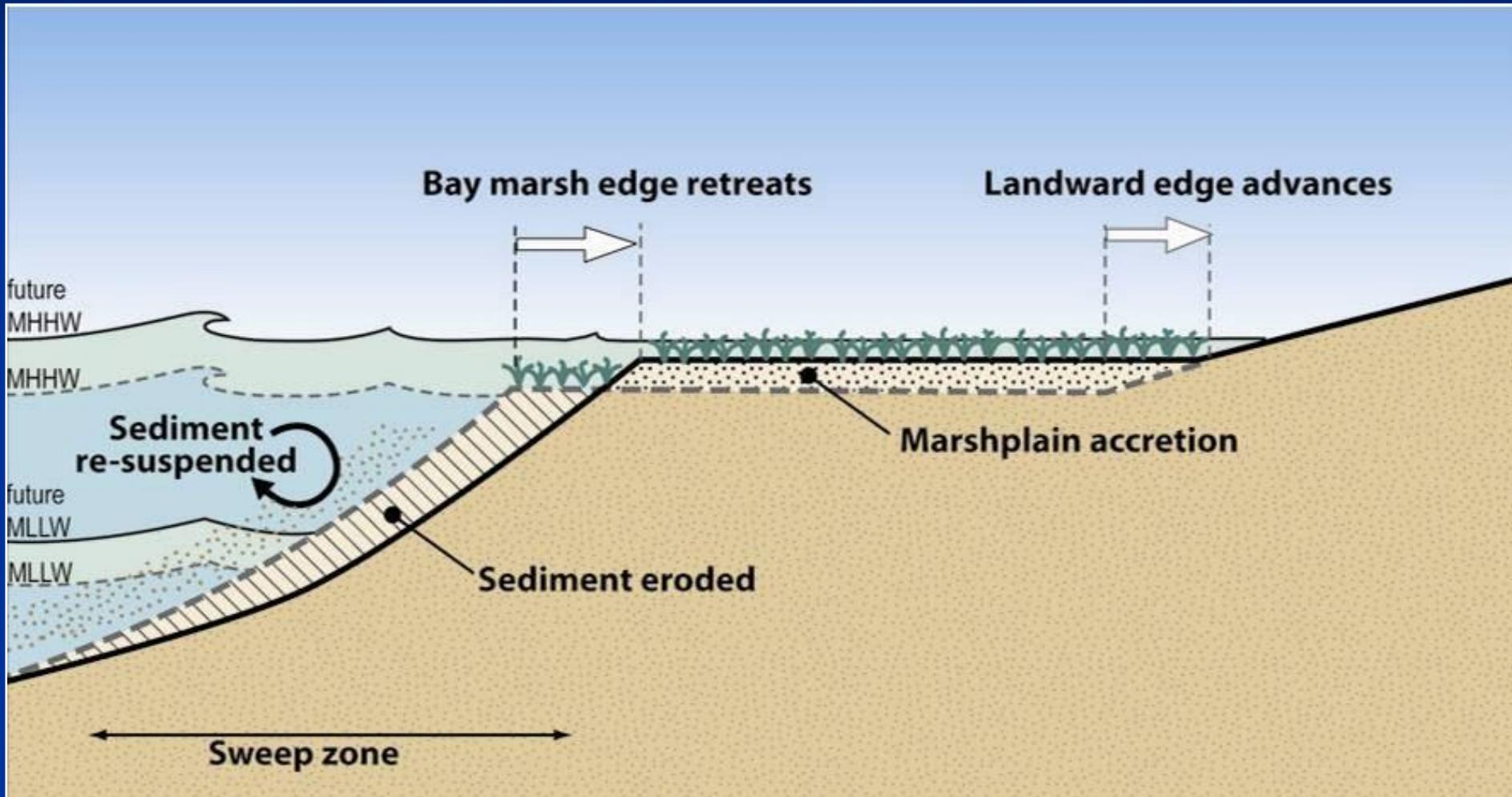
# Potential inundation

- Light Blue – 16 in
- Dark Blue – 55 in

Source: USGS, BCDC



# Natural shoreline evolution



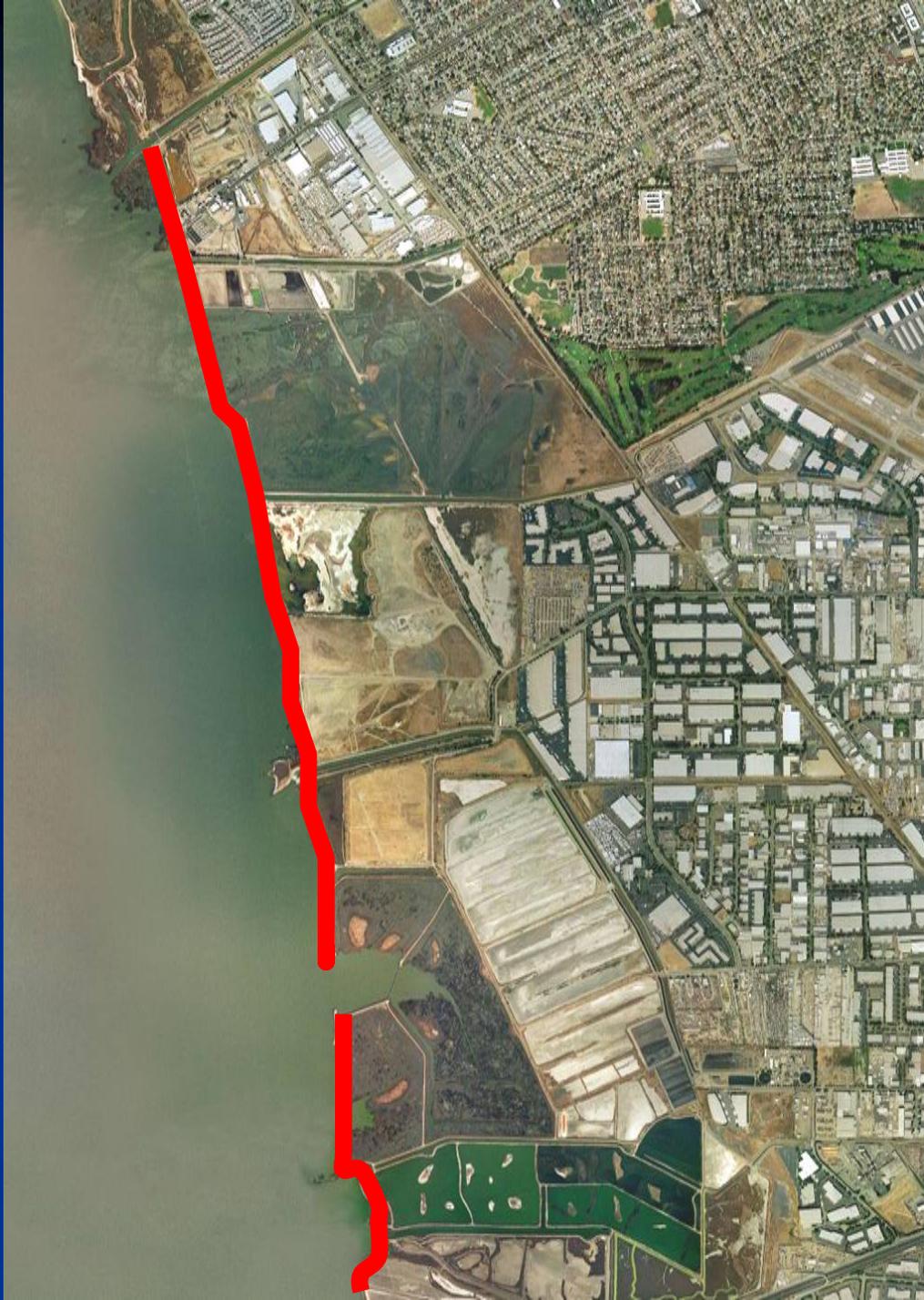


Frank's Dump West - New Year's Eve 2005  
8.9 ft tides; 40mph westerly winds



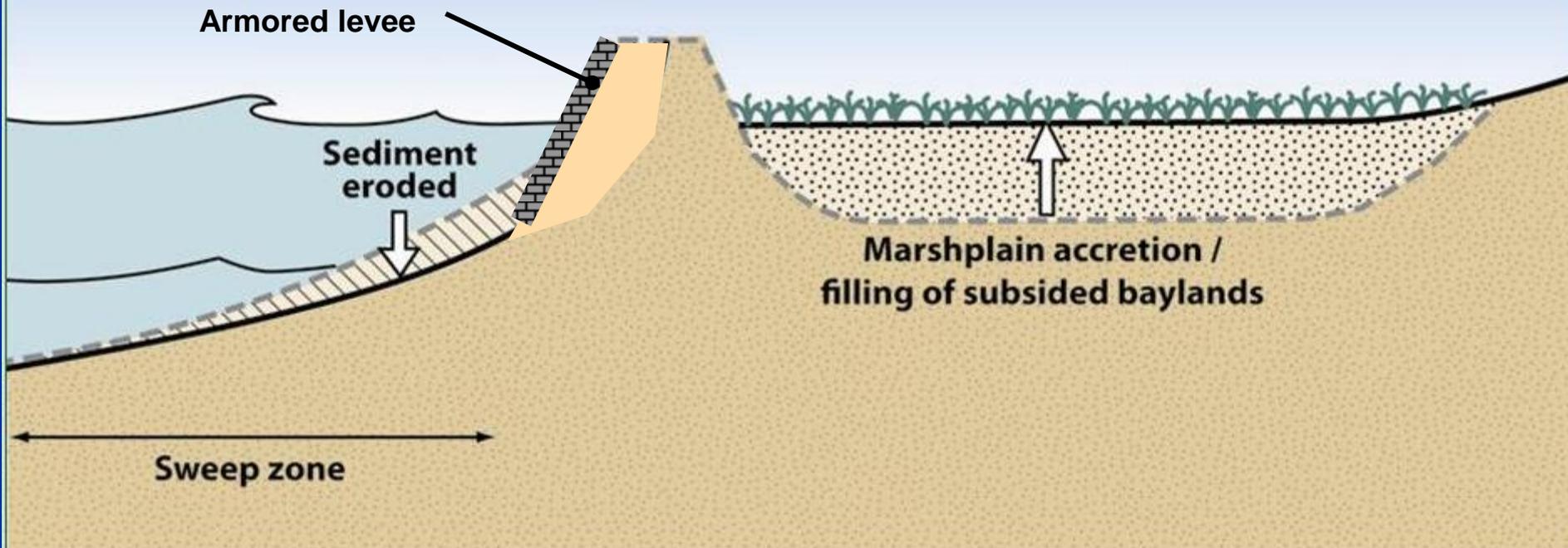
Hayward Marsh - New Year's Eve 2005  
8.9 ft tides; 40mph westerly winds

# Hold the Line

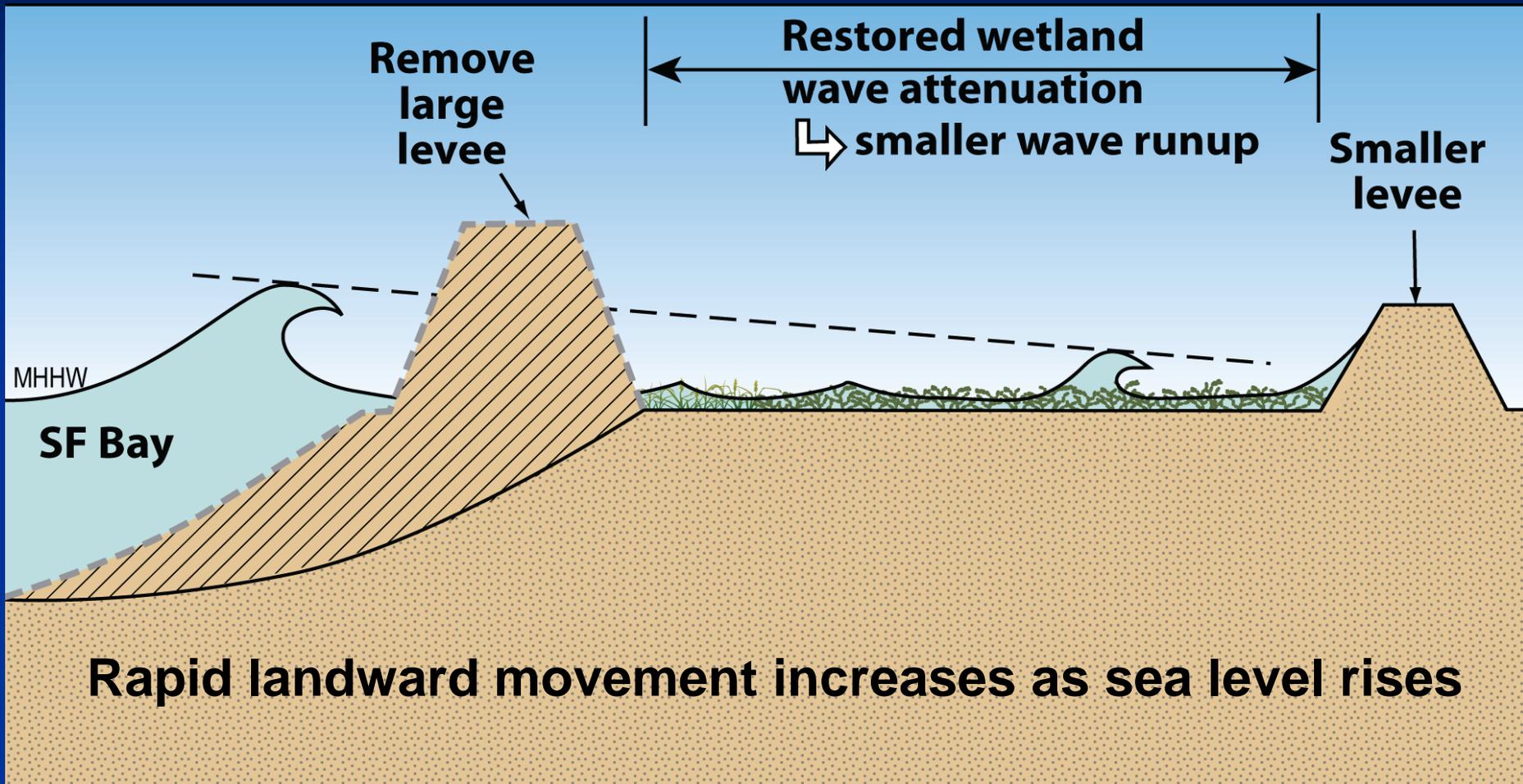


# Hold the Line

Levee slope increases as mudflat lowers and levee raised



# Realign



# Realign



# Opportunities

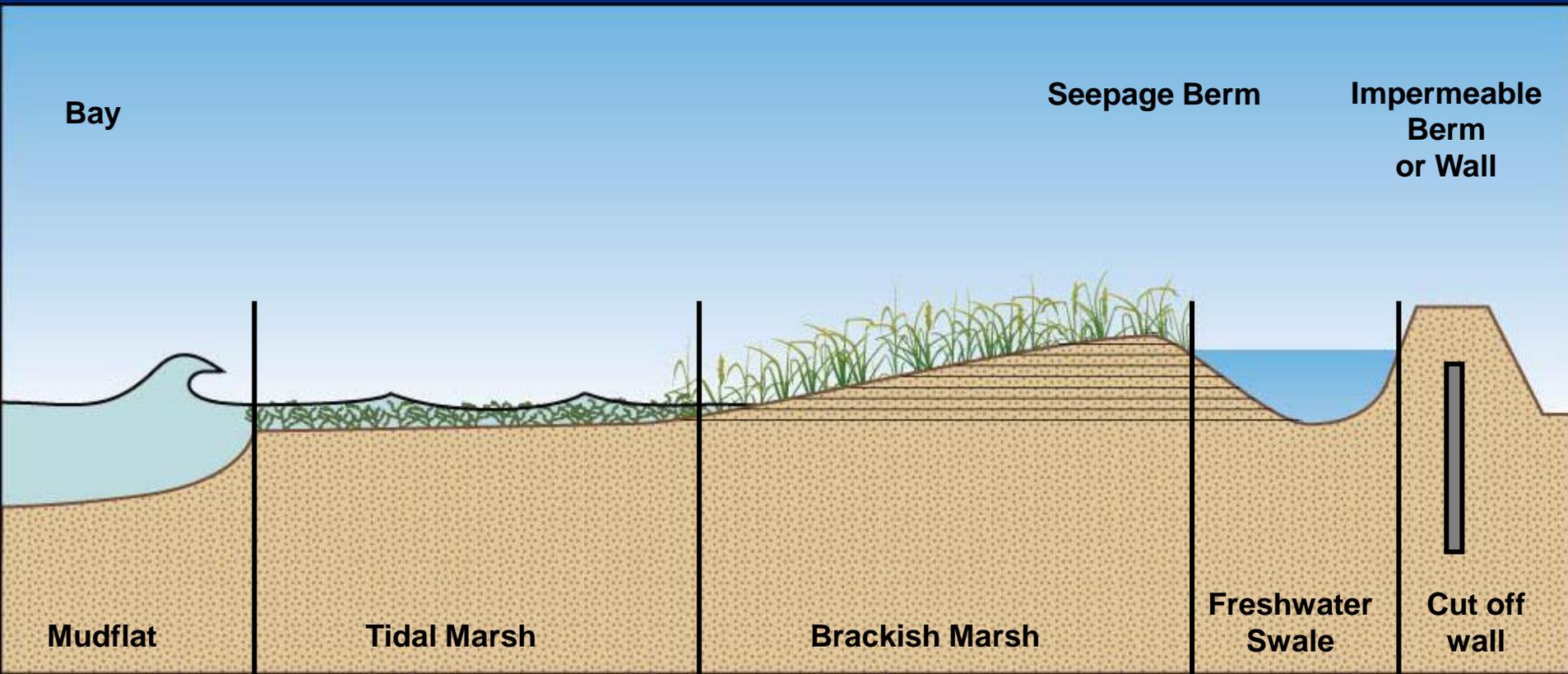
## Water

- Large amount of treated water passes through area
- Opportunity to reconfigure EBDA line
- In the past, sources were more diffuse

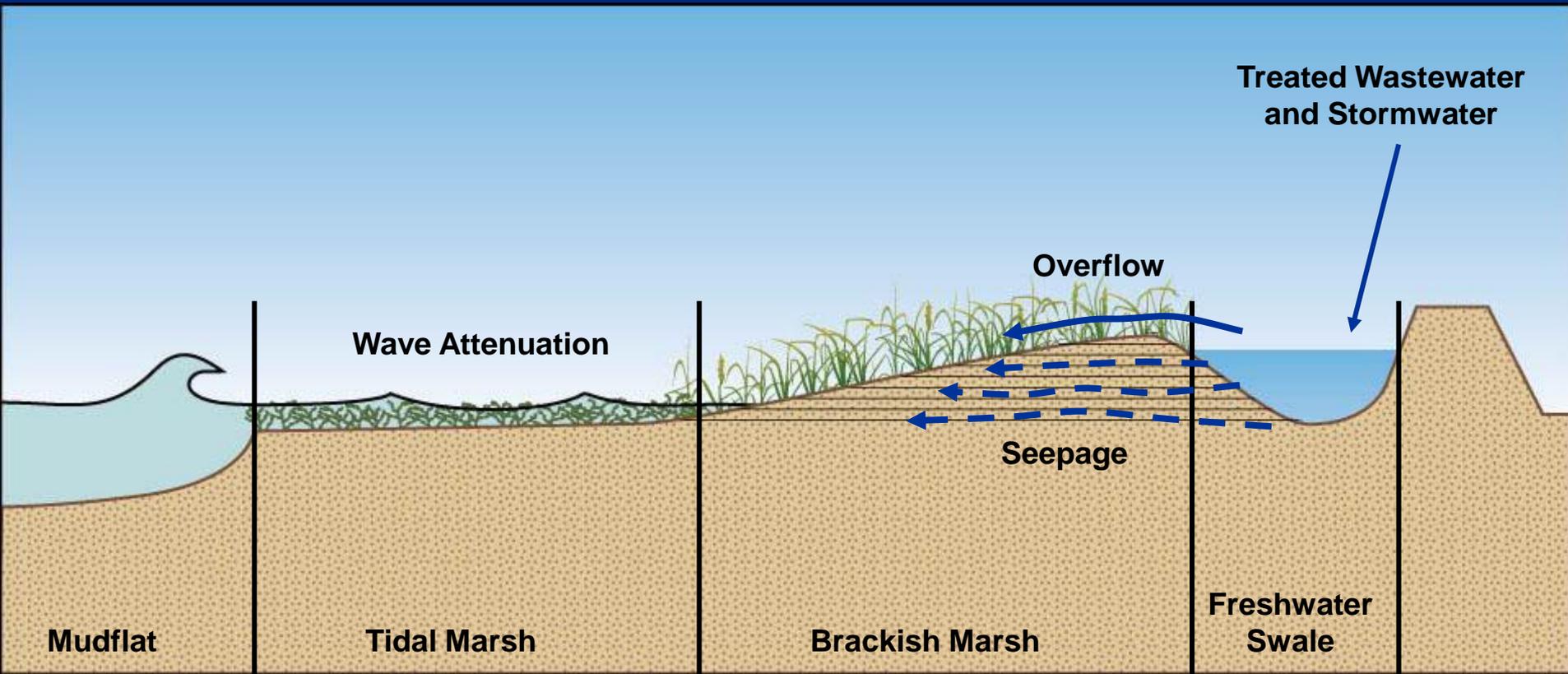
## Sediment

- Trapped in channels in watershed
- Trapped in marinas further alongshore
- In the past, sources were more diffuse

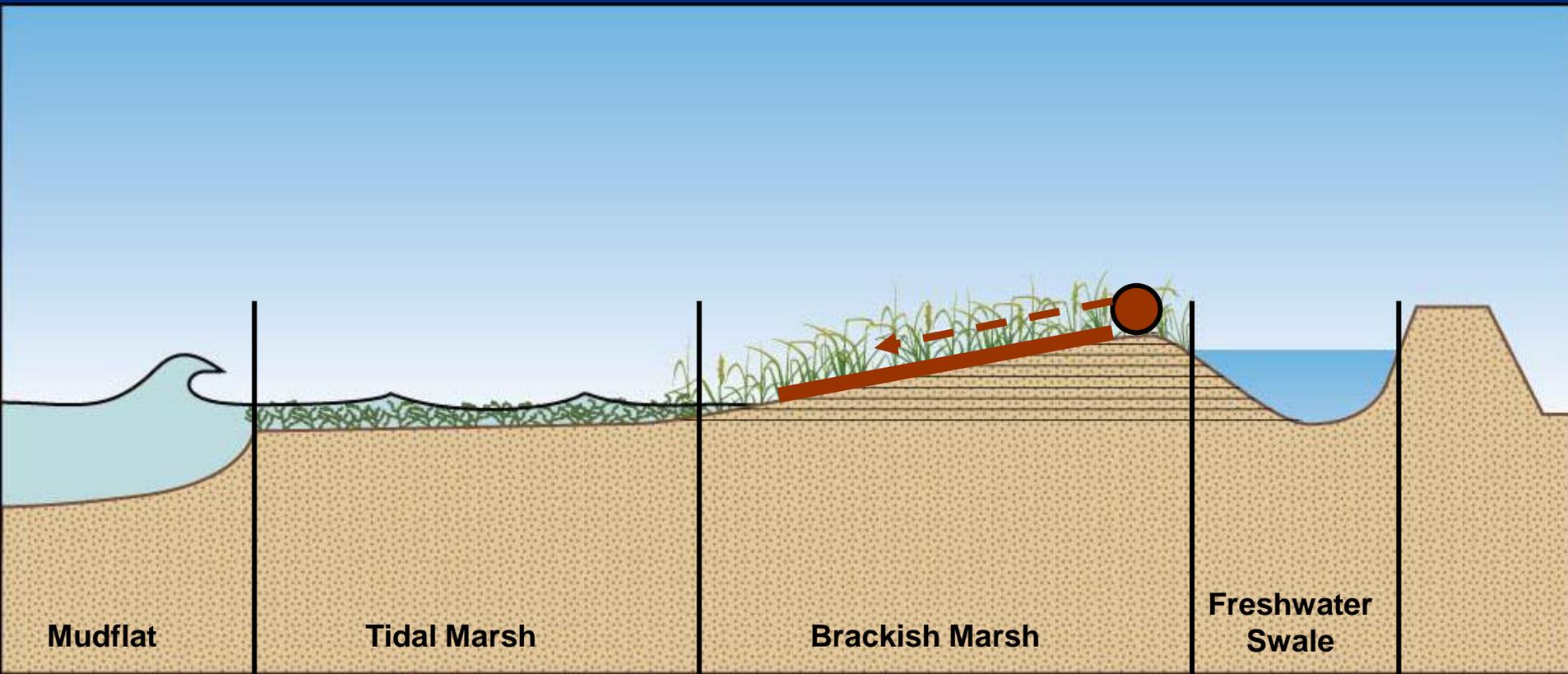
# Gradual Steepening



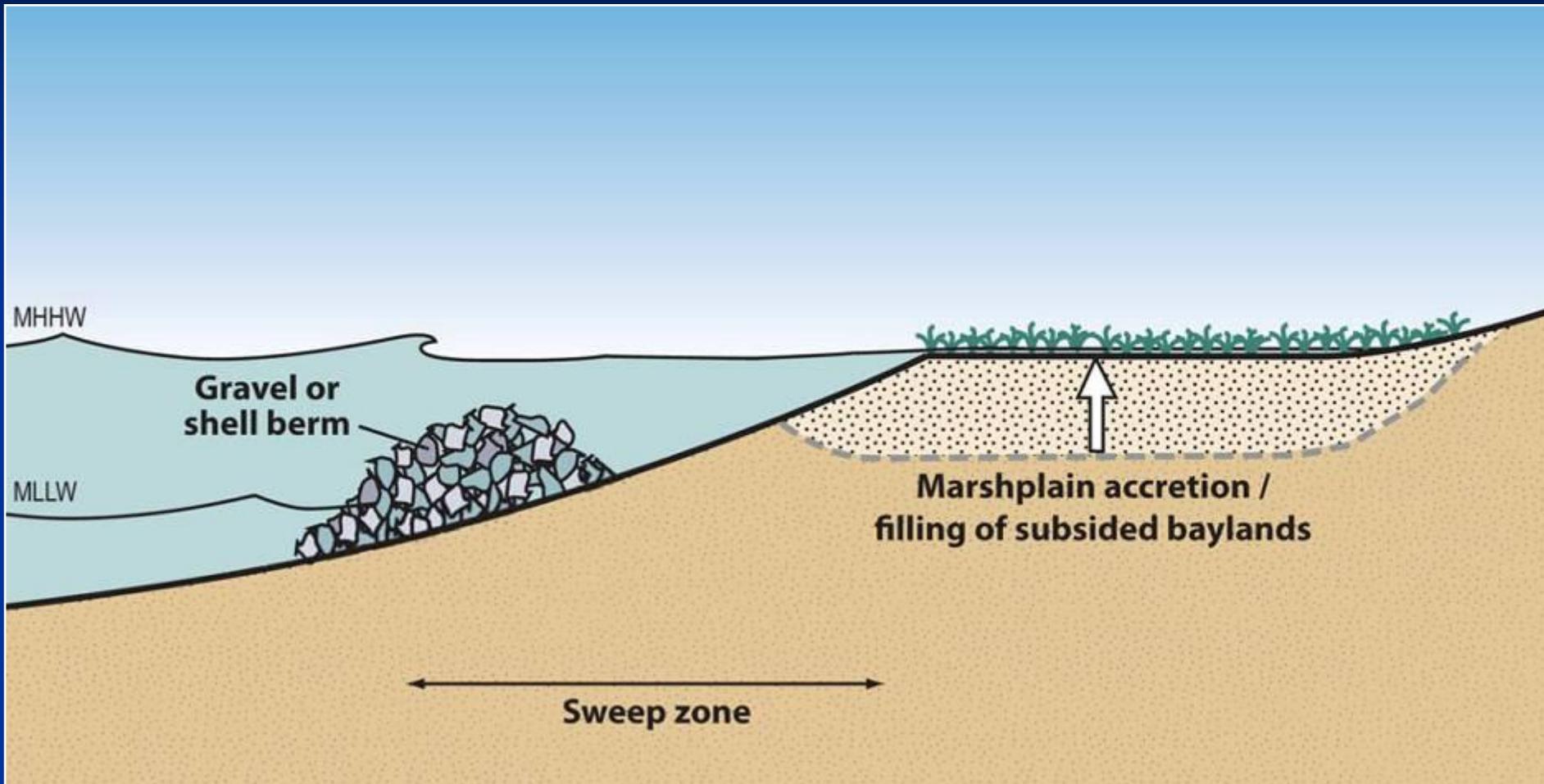
# Gradual Steepening



# Gradual Steepening



# Diffused Armoring



# Next Steps

- Master Plan
- Programmatic EIR
- Potential Funding
- Permits
- JPA